Electronic Version
Stylesheet Version v1.1.1

VEHICLE AND METHOD FOR CONTROLLING REGENERATIVE BRAKING

Abstract

A vehicle and a method for controlling regenerative braking are provided. To take advantage of regenerative braking, the maximum available regenerative braking torque is utilized for some time during a braking event. As the vehicle speed and/or powertrain torque decreases, the regenerative braking torque is controlled to deviate from the maximum. The point at which the regenerative braking torque deviates from the maximum is chosen based on the level of vehicle deceleration. The regenerative braking torque is then smoothly blended out until it reaches zero. The regenerative braking torque is brought to zero when the vehicle speed is very low, thereby eliminating the inefficiencies associated with operating a motor at a very low speed. This control of the regenerative braking torque provides a smooth and consistent feel to the vehicle operator.